FIELD EXPLORATION PROGRAM

A field investigation performed on June 6 and 7 consisted of drilling and logging five borings to depths ranigng from 15 to 50-feet. The borings were drilled with an 8-inch hollow-stem auger rig owned and operated by Exploration Geoservices. The approximate locations of the borings are shown on Figure 2. Drive samples were obtained using either a Modified California Sampler (2-inch inside diameter) or a Standard Split-Spoon Sampler (1⅜-inch inside diameter).

Preliminary soil classifications were made in the field in accordance with the Unified Soil Classification System, as shown on Figure A-1, and were verified by further examination of the samples in the laboratory and by testing. Figure A-2 presents a Log of Boring Legend of the borings along with sample locations and in situ test results are presented in this Appendix. Logs of the borings were prepared based on the field and laboratory test data and are presented in Figures A-3 through A-7.

LABORATORY TESTING

Relatively undisturbed soil samples were carefully packaged in the field and sealed to prevent moisture loss. The samples were then transported to our San Jose laboratory for examination and testing. Laboratory tests were performed on selected samples as an aid in classifying the soils and to evaluate the physical properties of the soils. Detailed descriptions of the laboratory tests are presented below under the appropriate test headings. Test results are presented in the figures that follow.

Moisture Content and Dry Density

Moisture content and dry density determinations were made on selected samples. The samples were first trimmed to obtain volume and wet weight, and then were dried in accordance with ASTM D2216 and D2937. After drying, the weight of each sample was measured, and moisture content and dry density were calculated. The results of the individual tests are presented in the Log of Boring sheets.

Unconfined Compressive Strength

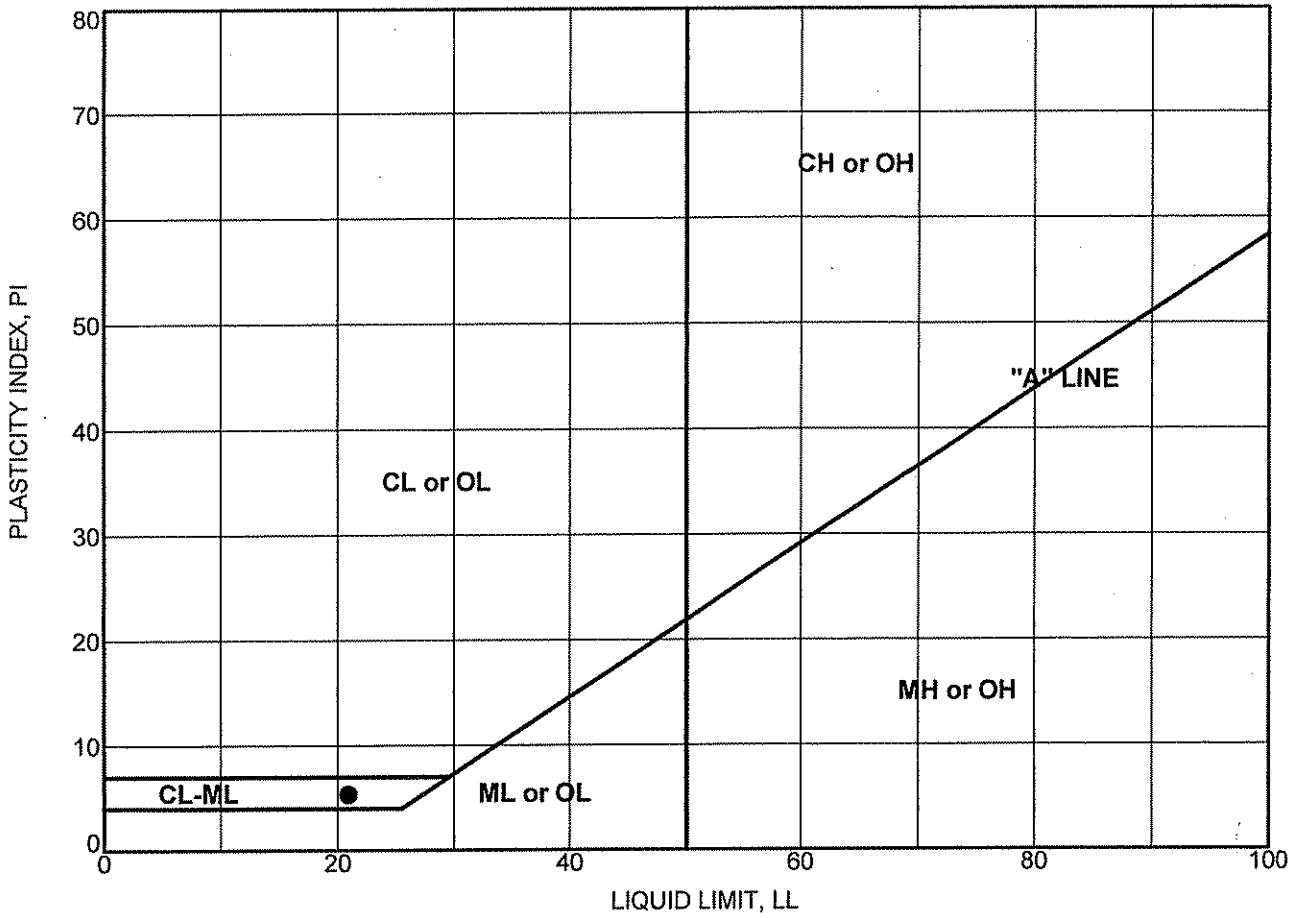
The unconfined compressive strength was estimated for selected samples. These tests were performed in accordance with ASTM D2166. The axial load applied was measured with a load cell at an axial strain rate of 1.0 percent per minute. Loading was continued until the axial load reached a peak value. The results of these tests are shown in the Log of Boring sheets.

Plasticity Index

Plasticity characteristics of the near surface native soil were determined for one selected sample by performing Liquid Limit and Plastic Limit tests generally in accordance with ASTM test method D4318. The results of these tests are presented on Figure A-8.

R-Value

An R-Value test was performed on a sample representative of the near surface soils. The test was performed in accordance with the Caltrans Test Designation 301. The test results are shown on Figure A-9.



Boring Number	Sample Number	Depth (feet)	Test Symbol	Moisture Content (%)	LL	PL	PI	Description
B-1	1	2	●	10	21	16	5	Sandy, silty CLAY (CL-ML)

Project: Fire Station #36
Project Number: 28649866

PLASTICITY CHART

Figure A-1

URS

Fire Station #36; San Jose, California

BORING LOCATION:		GROUND SURFACE ELEVATION (ft): TOP OF WELL CASING ELEVATION (ft):	
DRILLING AGENCY	DRILLER	DATE STARTED: DATE FINISHED:	
DRILLING EQUIPMENT		COMPLETION DEPTHS	BORING: 45.0 (ft) WELL: (ft)
DRILLING METHOD (as noted)	DRILL BIT	HAMMER/ DROP	(as noted)
SIZE AND TYPE OF CASING		NUMBER OF SAMPLES	DIST: UNDIST:
TYPE OF PERFORATION	FROM TO	WATER DEPTH (ft)	FIRST: COMPL.: 24 hr.:
SIZE AND TYPE OF PACK	FROM TO	LOGGED BY	CHECKED BY

TYPE OF SEAL	TYPE	FR	TO	TYPE	FR	TO
	No. 1:			No. 3:		
	No. 2:			No. 4:		

LOG OF LEGEND

(Sheet 1 of 1)

DEPTH (feet)	MATERIAL DESCRIPTION	FIELD TESTS: POCKET PEN (tsf)	DEPTH (feet)	SAMPLES: BLOWS /foot	NOTES
	Arrow denotes bottom of fill layer FILL				
5	51mm inside diameter Modified California sample		5		
	51mm outside diameter Standard Split Spoon sample (Standard Penetration Test)				
10			10		
	76mm outside diameter Shelby tube sample				
15			15		
	Hydraulic Pressure required to push Shelby tube sampler			2400 kPa	
20	Blow count with 64kg falling 0.76 meters for 0.3 meters of penetration		20	29	
25	Blow count with 64kg hammer falling 0.76 meters for 127mm of penetration		25	50/ 127mm	
	Groundwater level at time of drilling				
30			30		
	Groundwater at a time after drilling (as specified)				
35			35		
	PP= Pocket Penetrometer reading in kPa (kilopascals)	3.0			PP=300 kPa
	LL= Liquid Limit (%) PI= Plasticity Index (%) NOTE: PI= LL - (Plastic Limit [%])				LL=42 PI=21
40	+#4= Percentage of material retained on #4 sieve -#200= Percentage of material passing #200 sieve		40		+#4=13% -#200=10%

Other column headings: SOIL GRAPHIC; ELEVATION (feet); POCKET TV (psf); STRAIN AT FAILURE,%; WATER LEVEL; NUMBER TYPE; RECOVERY (%); INDEX PROPERTIES: MOISTURE CONTENT (%), DRY DENSITY (pcf), UNCONFINED COMPRESSIVE STRENGTH (psf)

KEY TO LABORATORY TESTS

PP= Pocket Penetrometer reading in kPa (kilopascals)

LL= Liquid Limit (%)
PI= Plasticity Index (%)
NOTE: PI= LL - (Plastic Limit [%])

+#4= Percentage of material retained on #4 sieve
-#200= Percentage of material passing #200 sieve

Fire Station #36; San Jose, California

BORING LOCATION:			GROUND SURFACE ELEVATION (ft): TOP OF WELL CASING ELEVATION (ft):
DRILLING AGENCY	Exploration Geoservices, Inc.	DRILLER Jason	DATE STARTED: 6/7/07 DATE FINISHED: 6/7/07
DRILLING EQUIPMENT	Mobile B-53		COMPLETION DEPTHS BORING: 50.0 (ft) WELL: N/A (ft)
DRILLING METHOD	Hollow Stem Auger	DRILL BIT 8 inch	HAMMER/ DROP 140lb/30in
SIZE AND TYPE OF CASING			NUMBER OF SAMPLES DIST: UNDIST:
TYPE OF PERFORATION	N/A	FROM N/A TO N/A	WATER DEPTH (ft) FIRST: N/A COMPL.: N/A 24 hr.: N/A
SIZE AND TYPE OF PACK	N/A	FROM N/A TO N/A	LOGGED BY E.Ortega CHECKED BY J.Landazuri

TYPE OF SEAL	TYPE	FR	TO	TYPE	FR	TO
	No. 1: Cement	0	15'	No. 3: N/A	N/A	N/A
	No. 2: N/A	N/A	N/A	No. 4: N/A	N/A	N/A

LOG OF BORING B1

(Sheet 1 of 2)

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	POCKET TV (psf)	STRAIN AT FAILURE,%	WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	TYPE	RECOVERY (%)	BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	DRY DENSITY (pcf)	UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
5		**Sandy, Silty CLAY (CL-ML) with gravel** Very dense, moist, dark brown, fine gravel				2.3		5	1		100	53	10	127	13400	LL=21 PI=5
						6.6			2		100	41	17	113	8350	
									3		100	50/3"				
10		**Gravelly lean CLAY (CL)** Stiff, moist, brown				8.0		10	4		100	70	20	110	3160	
15								15	5		50	50/6"	7	124		
20		**Well-graded SAND (SW) with gravel** Very dense, moist, brown, little fines						20	6		70	50/6"				
									7		80	50/5"				

Fire Station #36
San Jose, California

LOG OF BORING B1

Continued- Sheet 2 of 2

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	FIELD TESTS: POCKET TV (psf)	FIELD TESTS: STRAIN AT FAILURE, %	FIELD TESTS: WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY (%)	SAMPLES: BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	INDEX PROPERTIES: DRY DENSITY (pcf)	INDEX PROPERTIES: UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
30		**Well-graded SAND (SW) with gravel** Very dense, moist, brown, little fines						30	8		100	32				
		Lean CLAY (CL) Stiff, moist, brown, few gravels														
35		**Well-graded SAND (SW) with gravel** Very dense, moist, dark brown, little fines						35	9		50	50/5"				
40		**Lean CLAY (CL)** Hard, moist, brown				5.3		40	10		100	54	16	115	18450	
45		Few medium to coarse sands						45	11		100	50/5"				
		Silty SAND (SM) Very dense, moist, light brown, traces of gravels							12		80	50/5"				
50		BOTTOM OF BORING AT 50 FEET Boring dry ATD						50								
55								55								

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PROJECT NO. 28649866

Figure: A-3

7/12/07 JG04B 28649866-FS#36.GPJ

Fire Station #36; San Jose, California

BORING LOCATION:			GROUND SURFACE ELEVATION (ft): TOP OF WELL CASING ELEVATION (ft):
DRILLING AGENCY	Exploration Geoservices, Inc.	DRILLER Jason	DATE STARTED: 6/6/07 DATE FINISHED: 6/6/07
DRILLING EQUIPMENT	Mobile B-53		COMPLETION DEPTHS BORING: 30.0 (ft) WELL: N/A (ft)
DRILLING METHOD	Hollow Stem Auger	DRILL BIT 8 inch	HAMMER/ DROP 140lb/30in
SIZE AND TYPE OF CASING			NUMBER OF SAMPLES DIST: UNDIST:
TYPE OF PERFORATION	N/A	FROM N/A TO N/A	WATER DEPTH (ft) FIRST: N/A ▽ COMPL.: N/A ▼ 24 hr.: N/A ▽
SIZE AND TYPE OF PACK	N/A	FROM N/A TO N/A	LOGGED BY E.Ortega / CHECKED BY J.Landazuri

TYPE OF SEAL	TYPE	FR	TO	TYPE	FR	TO
	No. 1: Cement	0	30'	No. 3: N/A	N/A	N/A
	No. 2: N/A	N/A	N/A	No. 4: N/A	N/A	N/A

LOG OF BORING B2

(Sheet 1 of 2)

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	FIELD TESTS: POCKET TV (psf)	FIELD TESTS: STRAIN AT FAILURE,%	FIELD TESTS: WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY (%)	SAMPLES: BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	INDEX PROPERTIES: DRY DENSITY (pcf)	INDEX PROPERTIES: UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
		Sandy, Silty CLAY (CL-ML) Stiff, dry, dark brown, with some gravel, with roots							1		75	42	8	110		
									2		50	50/5"	14	102		
5		**Clayey SAND (SC)** Very dense, moist, dark brown, with some gravel						5	3		60	50/5"	11			
									4		60	50/5.5"				
10								10								
		Poorly graded SAND (SP) with gravel Very dense, moist, dark yellow brown							5		80	50/6"				
15								15								
									6		80	50/5"				
20								20								
									7		50	50/5"				

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PROJECT NO. 28649866

Figure: A-4

Fire Station #36
San Jose, California

LOG OF BORING B2

Continued- Sheet 2 of 2

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	FIELD TESTS: POCKET TV (psf)	FIELD TESTS: STRAIN AT FAILURE, %	FIELD TESTS: WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY (%)	SAMPLES: BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	INDEX PROPERTIES: DRY DENSITY (pcf)	INDEX PROPERTIES: UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
		Poorly graded SAND (SP) with gravel Very dense, moist, dark yellow brown							8			30 50/5.5"				
30		BOTTOM OF BORING AT 30 FEET Boring dry ATD						30								
35								35								
40								40								
45								45								
50								50								
55								55								

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PROJECT NO. 28649866

Figure: A-4

Fire Station #36; San Jose, California

BORING LOCATION:			GROUND SURFACE ELEVATION (ft): TOP OF WELL CASING ELEVATION (ft):
DRILLING AGENCY	Exploration Geoservices, Inc.	DRILLER Jason	DATE STARTED: 6/6/07 DATE FINISHED: 6/6/07
DRILLING EQUIPMENT	Mobile B-53		COMPLETION DEPTHS BORING: 30.0 (ft) WELL: N/A (ft)
DRILLING METHOD	Hollow Stem Auger	DRILL BIT 8 inch	HAMMER/ DROP 140lb/30in
SIZE AND TYPE OF CASING			NUMBER OF SAMPLES DIST: UNDIST:
TYPE OF PERFORATION	N/A	FROM N/A TO N/A	WATER DEPTH (ft) FIRST: N/A COMPL.: N/A 24 hr.: N/A
SIZE AND TYPE OF PACK	N/A	FROM N/A TO N/A	LOGGED BY E.Ortega CHECKED BY J.Landazuri

TYPE OF SEAL	TYPE	FR	TO	TYPE	FR	TO
	No. 1: Cement	0	30'	No. 3: N/A	N/A	N/A
	No. 2: N/A	N/A	N/A	No. 4: N/A	N/A	N/A

LOG OF BORING B3

(Sheet 1 of 2)

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	FIELD TESTS: POCKET TV (psf)	FIELD TESTS: STRAIN AT FAILURE,%	FIELD TESTS: WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY (%)	SAMPLES: BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	INDEX PROPERTIES: DRY DENSITY (pcf)	INDEX PROPERTIES: UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
		Sandy, Silty CLAY (CL-ML) Stiff, moist, dark brown							1		90	45	7			
									2		90	50/4"	15	116		
5		Very stiff						5	3		60	50/5.5"	8			
		Poorly graded SAND (SP) with gravel Very dense, moist, dark brown, little fines							4		90	50/6"	5			
10								10	5		50	50/6"				
		Sandy, Silty CLAY (CL-ML) Very dense, moist, dark brown, sand-silt mixture with some gravel							6		80	50/3"				
15								15								
		Poorly graded SAND (SP) with gravel Very dense, moist, light brown							7		80	50/5.5"				
20		**Lean CLAY (CL) with gravel** Very stiff, moist, brown						20	8		80	50/5"				

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Figure: A-5

Fire Station #36
San Jose, California

LOG OF BORING B3

Continued- Sheet 2 of 2

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	FIELD TESTS: POCKET TV (psf)	FIELD TESTS: STRAIN AT FAILURE, %	FIELD TESTS: WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY (%)	SAMPLES: BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	INDEX PROPERTIES: DRY DENSITY (pcf)	INDEX PROPERTIES: UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
		Lean CLAY (CL) with gravel Very stiff, moist, brown														
		Silty, clayey SAND (SC-SM) with gravel Very dense, moist, dark brown							9		30	50/5"				
30		BOTTOM OF BORING AT 30 FEET Boring dry ATD						30								
35								35								
40								40								
45								45								
50								50								
55								55								

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PROJECT NO. 28649866

Figure: A-5

Fire Station #36; San Jose, California

BORING LOCATION:			GROUND SURFACE ELEVATION (ft): TOP OF WELL CASING ELEVATION (ft):
DRILLING AGENCY	Exploration Geoservices, Inc.	DRILLER Jason	DATE STARTED: 6/6/07 DATE FINISHED: 6/6/07
DRILLING EQUIPMENT	Mobile B-53		COMPLETION DEPTHS BORING: 15.0 (ft) WELL: N/A (ft)
DRILLING METHOD	Hollow Stem Auger	DRILL BIT 8 inch	HAMMER/ DROP 140lb/30in
SIZE AND TYPE OF CASING			NUMBER OF SAMPLES DIST: UNDIST:
TYPE OF PERFORATION	N/A	FROM N/A TO N/A	WATER DEPTH (ft) FIRST: N/A COMPL.: N/A 24 hr.: N/A
SIZE AND TYPE OF PACK	N/A	FROM N/A TO N/A	LOGGED BY E.Ortega CHECKED BY J.Landazuri

TYPE OF SEAL	TYPE	FR	TO	TYPE	FR	TO
	No. 1: Cement	0	15'	No. 3: N/A	N/A	N/A
	No. 2: N/A	N/A	N/A	No. 4: N/A	N/A	N/A

LOG OF BORING B4

(Sheet 1 of 1)

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	FIELD TESTS: POCKET TV (psf)	FIELD TESTS: STRAIN AT FAILURE,%	FIELD TESTS: WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY (%)	SAMPLES: BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	INDEX PROPERTIES: DRY DENSITY (pcf)	INDEX PROPERTIES: UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
		Sandy lean CLAY (CL) with gravel Very stiff, moist, dark brown							1		100	22	11	117	6860	
									2		100	39				
5								5	3		80	70	13	117	11620	
		Silty SAND (SM) Very dense, moist, light brown, fine sand, traces of gravels							4		100	46				
10								10								
		Sandy lean CLAY (CL) Very stiff, moist, dark brown, with some gravels and sands							5		80	50/5"				
15		BOTTOM OF BORING AT 15 FEET Boring dry ATD						15								
20								20								

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PROJECT NO. 28649866

Figure: A-6

Fire Station #36; San Jose, California

BORING LOCATION:			GROUND SURFACE ELEVATION (ft): TOP OF WELL CASING ELEVATION (ft):
DRILLING AGENCY	Exploration Geoservices, Inc.	DRILLER Jason	DATE STARTED: 6/6/07 DATE FINISHED: 6/6/07
DRILLING EQUIPMENT	Mobile B-53		COMPLETION DEPTHS BORING: 15.0 (ft) WELL: N/A (ft)
DRILLING METHOD	Hollow Stem Auger	DRILL BIT 8 inch	HAMMER/ DROP 140lb/30in
SIZE AND TYPE OF CASING			NUMBER OF SAMPLES DIST: UNDIST:
TYPE OF PERFORATION	N/A	FROM N/A TO N/A	WATER DEPTH (ft) FIRST: N/A COMPL.: N/A 24 hr.: N/A
SIZE AND TYPE OF PACK	N/A	FROM N/A TO N/A	LOGGED BY E.Ortega / CHECKED BY J.Landazuri

TYPE OF SEAL	TYPE	FR	TO	TYPE	FR	TO
	No. 1: Cement	0	15'	No. 3: N/A	N/A	N/A
	No. 2: N/A	N/A	N/A	No. 4: N/A	N/A	N/A

LOG OF BORING B5

(Sheet 1 of 1)

DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION	ELEVATION (feet)	FIELD TESTS: POCKET PEN (tsf)	POCKET TV (psf)	STRAIN AT FAILURE,%	WATER LEVEL	DEPTH (feet)	SAMPLES: NUMBER	TYPE	RECOVERY (%)	BLOWS /foot	INDEX PROPERTIES: MOISTURE CONTENT (%)	DRY DENSITY (pcf)	UNCONFINED COMPRESSIVE STRENGTH (psf)	NOTES
0		**SILT (ML)** Medium dense, moist, dark brown, trace sand and gravels						0	1		100	25	14	118		
		More coarse sand and fine gravel							2		100	46				
5								5	3		100	34	20	108	7070	
		Small layers of mostly sand and fine gravel							4		100	36				
10								10								
		Silty SAND (SM) Very dense, moist, dark brown, some gravels							5		90	56				
15		BOTTOM OF BORING AT 15 FEET Boring dry ATD						15								
20								20								

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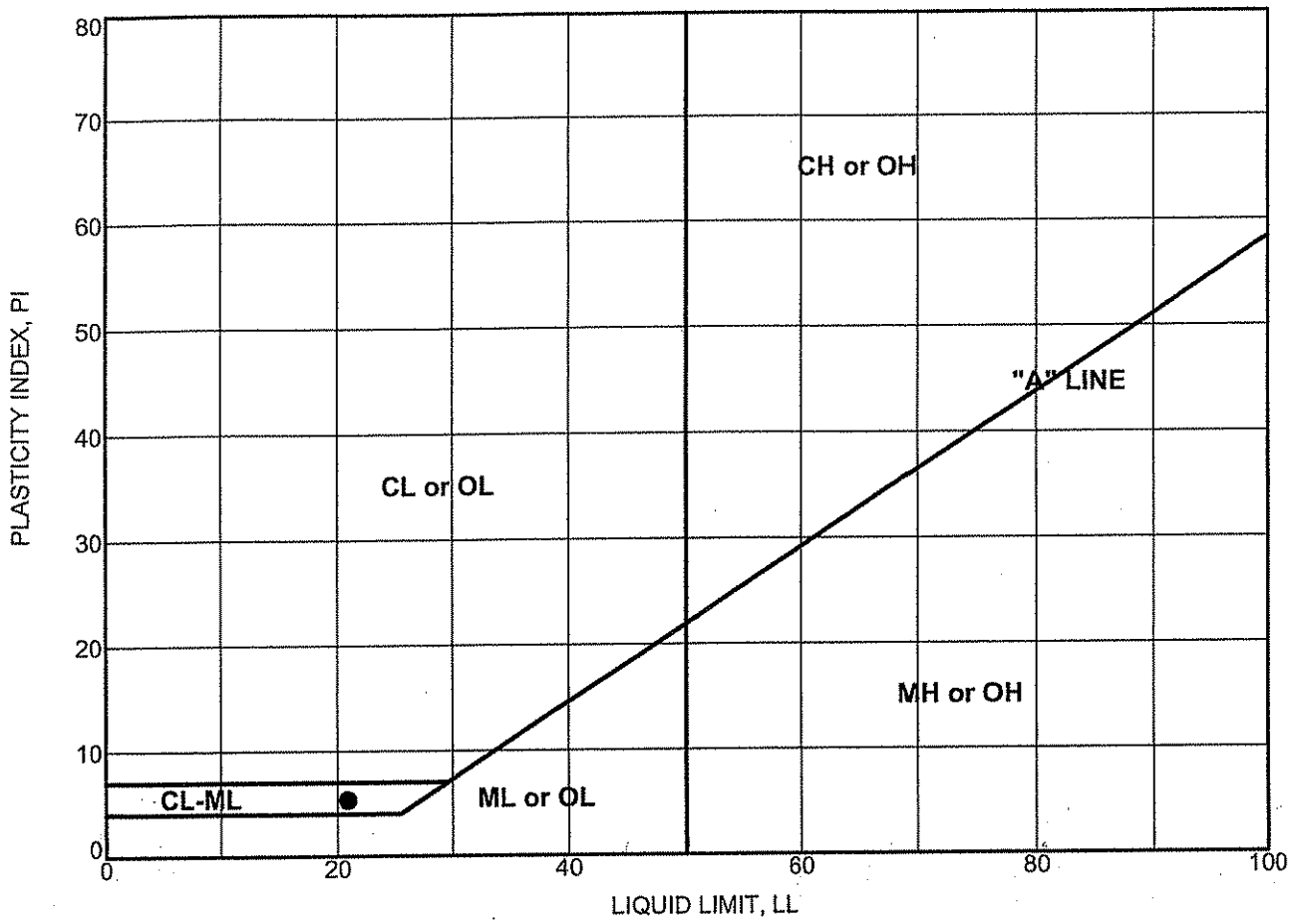
PROJECT NO. 28649866

Figure: A-7



Boring Number	Sample Number	Depth (feet)	Test Symbol	Moisture Content (%)	LL	PL	PI	Description
B1	1	2	●	10	21	16	5	Sandy, silty CLAY (CL-ML)

Project: Fire Station #36
Project Number: 28649866

PLASTICITY CHART

Figure A-8

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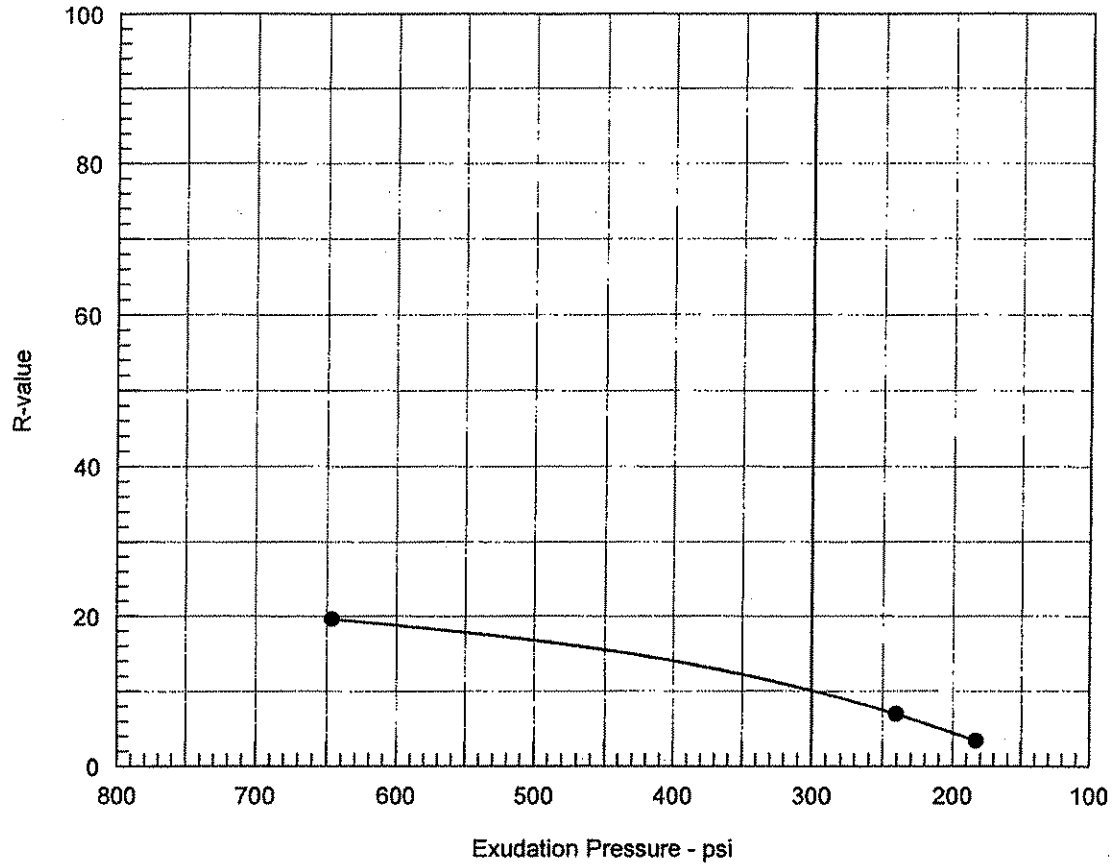
R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - Cal Test 301

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	20	114.4	16.3	0.00	150	2.50	183	3	3
2	35	118.7	14.6	0.00	141	2.36	240	8	7
3	145	122.8	12.9	0.09	117	2.49	646	20	20

Test Results	Material Description
R-value at 300 psi exudation pressure = 10	Brown gravelly sandy silt

Project No.: 28649866.00002
Project: Fire Station #36
Source of Sample: B-2

Date: 7/3/2007

Tested by:
Checked by:
Remarks:

R-VALUE TEST REPORT

SIGNET TESTING LABS, INC.

Figure A-9